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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,112	11/06/2000	Klaus Niepoth	SWR-0032	8193

23413 7590 03/13/2003

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

10

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

43

Office Action Summary

Application No.

09/707,112

Applicant(s)

NIEPOTH ET AL.

Examiner

Virginia Manoharan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/10/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The inconsistent used of terminology in the claims is improper. For example: "at least two steam heated cross stream heat exchangers" recited in claim 6, line 12, as opposed to "each heat exchanger" in line 4 and "all heat exchanger" in line 6 and further "the heat exchangers" in claim 8.

Reciting e.g., each of the at least two heat exchanger – in line 4 in lieu of "each heat exchanger" or inserting the terms – at least two – in the latter recitations similar to the limitation formerly recited would obviate this rejection.

b. The claimed "the steam concentrate" in claim 7 lacks antecedent support. Also "steam concentrate" denotes two different fluids or materials – in – process. Steam is the vapor normally obtained overhead of the evaporator, whereas "concentrate" or residue is the bottoms product of evaporation which is inconsistent therewith.

c. The terms "second" in claim 9 is not initially recited in the base claim.

d. In claim 6 "a separation area" is ambiguous with the recitation of "area" and appears not to be positively recited in the specification.

e. The structures which make up the apparatus must be positively recited in the claims. See e.g., claims 7 and 10.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '772 in view of Antony (USC 4,217,176) and Sephton (6,309,513).

Antony and EP '722 are applied for the same combined reasons as set forth at page 3 of the previous Office action. Sephton is applied to teach that the claimed "common medium feed distributor for all heat exchangers wherein all heat exchangers are fed by feeding the first of the directly serially connected heat exchangers with the medium to be concentrated" is a known expediency in the art. See Fig. 1A. To incorporate Sephton to EP '772 structure would have been obvious to one of ordinary skill in the art since they all belong to the same processing environment i.e., to the field of distillation; and since Sephton suggests at col. 7, lines 24-29 and col. 11, lines 36-56 of the variability of feed distribution and units stacking e.g., horizontally adjacent one another or vertically one above the other.

Claim 10 (in more positive structural terms) is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed December 10, 2002 have been fully considered but they are not persuasive.

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Applicants following arguments such as: "... Thus, EP 0729772 does not teach or suggest a common medium feed distributor for all heat exchangers or a single separation chamber providing only one point in the evaporator where the exhaust steam leaves the medium.... Antony discloses an evaporator having two heat exchangers. See Figure 5. Each of the heat exchangers has a separate feed distributor and also each heat exchangers has a separation chamber for separating exhaust steam from the medium. ... Thus, there is not a common central medium feed distributor for all heat exchangers but separate distributors for each heat exchanger... There is also not one separation chamber at the end of the heat exchangers allowing a separation of exhaust steam from the medium only at that point. ... Instead, Antony discloses separation chambers for each exchanger. Further, both heat exchangers are fed with steam from the same source..' are not persuasive of patentability for the following reasons. Whether the feed distributor is separate, as in the prior art or "common" as claimed, is of no patentable moment.

It is not deemed inventive to make "common" what is "separate" before or vice versa without producing any new and unexpected result. There is no evidence of record on the criticality of the argued "common" feed distribution. Nonetheless, the common feed distributor is not an unobvious subject matter nor is it evidence of criticality as taught by Sephton, discussed supra. Moreover, the claims do not preclude Antony's argued "each heat exchanger has a separation chamber for separating exhaust steam from the medium" with the recitation of comprising which is an all-inclusive term that is commensurate with the argument.

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Likewise, the claims are also not limited to the argued "a single separation chamber providing only one point.. There is also not one separation chamber at the end of the heat exchangers allowing a separation of exhaust steam from the medium only at that point ..." commensurate with the arguments. (Underlining supplied).

Nonetheless, giving claim 6 its broadest reasonable interpretation, Antony's separation chamber at the last of the heat exchangers would read on the broadly claimed "a separation area for separating exhaust steam out of the medium to be concentrated being serially connected to the last of the directly serially connected heat exchanger".

Thus, in the absence of unexpected result, a prima facie case of obviousness is deemed to be reasonably establish by the prior art and has not been rebutted.

The arguments with regards to FR '103 are deemed moot since this alternative reference has been dropped from the above rejection.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Williamson and Nasser both disclose a multistage distillation apparatus.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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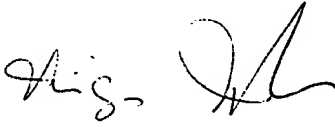
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 703-308-3844. The examiner can normally be reached on Tuesday-Friday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9462 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

V. Manoharan/mn
March 11, 2003


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3/11/03